

Application No. 10/628,783 - - - - 2

AMENDMENTS TO THE CLAIMS

Claims 1-49 (cancelled).

Claim 50 (currently amended). A transfected lineage negative hematopoietic stem cell population comprising endothelial progenitor cells in which at least about 50% of the cells include the cell markers CD31 and c-kit, and not more than about 1% of the cells express Tie-2, wherein the cells of the stem cell population are transfected with a gene encoding an anti-angiogenic peptide.

Claim 51 (cancelled).

Claim 52 (previously presented). The transfected stem cell population of claim 50 wherein the anti-angiogenic peptide is a protein fragment.

Claim 53 (original). The transfected stem cell population of claim 52 wherein the protein fragment is an anti-angiogenic fragment of TrpRS.

Claim 54 (original). The transfected stem cell population of claim 53 wherein the fragment of TrpRS is T2-TrpRS.

Claim 55 (currently amended). A method of inhibiting retinal angiogenesis in the eye of a mammal comprising intravitreally injecting into the eye of the mammal a transfected lineage negative hematopoietic stem cell population comprising endothelial progenitor cells in which at least about 50% of the cells include the cell markers CD31 and c-kit, and not more than about 1 % of the cells express Tie-2, wherein the cells of the stem cell population are transfected with a gene encoding an anti-angiogenic peptide.

Claim 56 (previously presented). The method of claim 55 wherein the transfected lineage negative hematopoietic stem cell population is prepared by the steps of:

- (a) extracting bone marrow from a mammal;
- (b) separating a plurality of monocytes from the bone marrow;
- (c) labeling the plurality of monocytes with biotin conjugated lineage panel antibodies to CD45, CD3, Ly-6G, CD11 and TER-119;
- (d) removing monocytes that were lineage positive for CD45, CD3, Ly-6G, CD11 and TER-119 from the plurality of monocytes to provide a population of lineage negative hematopoietic stem cells including endothelial progenitor cells; and

Application No. 10/628,783 - - - - 3

- (e) transfecting the population of hematopoietic stem cells provided in step (d) with a gene that operably encodes an antiangiogenic peptide.

Claim 57 (cancelled).

Claim 58 (currently amended). A method of delivering transgenes to the retinal vasculature of a mammal comprising intravitreally injecting a transfected lineage negative hematopoietic stem cell population derived from bone marrow into the eye of the mammal, wherein the stem cell population comprises endothelial progenitor cells in which at least about 50% of the cells include the cell markers CD31 and c-kit, and not more than about 1 % of the cells express Tie-2, wherein the cells of the stem cell population are transfected with a gene that operably encodes an antiangiogenic peptide.

Claim 59 (previously presented). The method of claim 58 wherein the transfected lineage negative hematopoietic stem cell is prepared by the steps of:

- (a) extracting bone marrow from a mammal;
- (b) separating a plurality of monocytes from the bone marrow;
- (c) labeling the plurality of monocytes with biotin conjugated lineage panel antibodies to CD45, CD3, Ly-6G, CD11 and TER-119;
- (d) removing monocytes that were lineage positive for CD45, CD3, Ly-6G, CD11 and TER-119 from the plurality of monocytes to provide a population of lineage negative hematopoietic stem cells including endothelial progenitor cells; and
- (e) transfecting the population of hematopoietic stem cells provided in step (d) with a gene that operably encodes an antiangiogenic peptide.

Claim 60 (cancelled).

Claim 61 (original). The method of claim 58 wherein the gene is useful for inhibiting retinal neovascularization.

Claims 62-65 (cancelled).